



## The Virginia Environmental Excellence Program Takes Off!

*Lockheed Martin receives first E3 designation!*

The Virginia Environmental Excellence Program (VEEP) is slowly but surely building up speed. The VEEP is DEQ's program to promote the use of environmental management systems (EMS) and pollution prevention (P2) as a means of achieving greater environmental quality and improved organizational performance. This voluntary program offers recognition and incentives to encourage the adoption of EMS and P2 by all organizations.



DEQ Director Dennis Treacy and Secretary of Natural Resources John Paul Woodley, Jr. presented the award to the plant manager, Frank DeBritz, of Lockheed Martin in Manassas.

There are two types of participation: Environmental Enterprise (E2), for organizations that are interested in implementing an EMS; and Exemplary Environmental Enterprise (E3) for organizations that have a fully-implemented EMS, P2 program, and demonstrated environmental performance.

To date, DEQ has received four applications and many are reportedly "en route". The two applicants for the E2 designation are from Graham White Manufacturing Company in Salem and

Safeway. Safeway has submitted applications for their 41 store locations throughout northern Virginia. The two applicants for E3 are Canon Virginia in Newport News, and Lockheed Martin in Manassas.

On November 3, Lockheed Martin was announced as the program's first official E3 member. Staff from the Office of Pollution Prevention traveled to Manassas for a ceremony to present Lockheed Martin with its E3 certificate and to recognize the company for its environmental achievements. A similar event is being planned for Safeway to announce its 41 E2 facilities.

*If you would like more information on VEEP, please contact DEQ's Jennifer Comfort at 804-698-4235 or [jkccomfort@deq.state.va.us](mailto:jkccomfort@deq.state.va.us).*

## Virginia Strategic Goals Program for Metal Finishers

On December 16, 1999, DEQ signed a memorandum of agreement committing to EPA's Strategic Goals Program (SGP) for Metal Finishers. During the first half of 2000, DEQ worked with stakeholders, and EPA to develop the "Virginia Strategic Goals Program Framework". A committee of representatives from the metal finishing industry, municipal wastewater plants, DEQ regulatory programs, EPA Region III, EPA Headquarters, and DEQ developed and initiated the Virginia program.

There are roughly 120 metal finishing facilities in Virginia. These facilities are associated with 34 local wastewater plants. The program was officially launched on September 19 in Williamsburg and on September 20 in Roanoke with orientation workshops for prospective participants. To date, 19 metal finishers and 8 local wastewater treatment plants have signed up for SGP.

The Virginia program offers technical assistance, public recognition and the benefits of a collaborative relationship that may influence the development of future regulations and related programs.

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In addition, the program will strive to facilitate access to low-interest loans and



DEQ Director Dennis Treacy and EPA Region III Administrator Brad Campbell signing the MOA.

tax credits for P2 equipment; and to provide technical training and workshops at special rates for Virginia SGP members. In conjunction with other partnership programs, such as the Virginia Environmental Excellence Program and EPA's National Performance Track, the Virginia SGP will hopefully serve as a model for other industrial sectors to strive to go "beyond compliance".

*For more information about the SGP program, contact DEQ's John Handzo at 804-698-4439 or [jghandzo@deq.state.va.us](mailto:jghandzo@deq.state.va.us).*

## The B4B Award Winners are... in Virginia

At least many of them are. The 2<sup>nd</sup> Annual *Businesses for the Bay* Meeting & Excellence Awards was hosted by Virginia at the fashionable Tides Inn in Irvington on October 26 & 27. This year's theme was "moving towards zero release", and the meeting featured the new *Chesapeake 2000 Agreement* and the many new goals and commitments related to the continuing Bay restoration efforts. The new *Businesses for the Bay* program goals were officially presented; and participants discussed how we, as a program can work together to accomplish these goals.

Honored guests and speakers included Secretary of Natural Resources John Paul Woodley, Jr., DEQ Director Dennis Treacy, and Bill Mateszuski, the Director of the Chesapeake Bay Program. The centerpiece

of the event was the presentation of the ***Businesses for the Bay Excellence Awards***, which are presented annually by the Chesapeake Executive Council for outstanding achievements in pollution prevention. This year, participants reported 773 million pounds of wastes reduced with resulting cost savings of more than \$4.8 million. In addition, more than 9000 employees were trained by B4B member facilities.

### ***Businesses for the Bay Goals in Support of the Toxics Strategy***

- By 2005, B4B will have **1000 participants** throughout the watershed.
- By 2005, B4B will have **300 mentors** performing **500 "mentoring events"** per year.
- By 2005, B4B participants will prevent a cumulative total of **1 billion pounds of hazardous substances** from entering the waste stream.

### ***Mentor of the Year Award***

**Tedd Jett**  
**Merck & Company**  
**Elkton**



### ***Mentoring Accomplishments:***

- Leadership in the development of the Virginia Environmental Excellence Program and assistance with orientation workshops.
- Guidance to various regional companies, including suppliers, contractors, and even competitors.
- Promotion of peer-to-peer mentoring activities within the Virginia Manufacturers Association.

### ***Merck Accomplishments:***

- Environmental releases reduced by more than 80% over the past 10 years.
- First in Virginia to implement a project under EPA's Project XL initiative to increase its operating flexibility while delivering superior environmental performance.

**Contact:** Tedd Jett at 540-298-4869 or [tedd\\_h\\_jett@merck.com](mailto:tedd_h_jett@merck.com).

## B4B Success Stories and Award Winners in Virginia

### ***Outstanding Achievement Award for Federal/State Government***

**US Coast Guard**  
**Portsmouth**

- Hazardous Material Minimization Center (HMMC) serves as a central procurement and distribution point, maintaining a just in time inventory, and minimizing hazardous material usage on base.
- Significant reductions in hazardous materials use and wastes found through the tracking system.



**Contact:** Francis Douglas at 757-483-8593 or [fdouglas@iscparts.uscg.mil](mailto:fdouglas@iscparts.uscg.mil).

### ***Outstanding Achievement Award for Municipal Government***

**City of Newport News**

- P2 incorporated to outreach programs including education, pesticide and household chemical collections.
- Upgrades to the City's stormsewer systems and maintenance.
- Office waste reduction achievements.
- Extensive upgrades in the lighting and heating systems saving thousands of dollars in energy costs.
- Replacement and recycling of obsolete fluorescent bulbs.
- Extensive upgrades resulted in significant waste reductions and cost savings in automotive and maintenance division.



**Contact:** Denise Jeffries at 757-269-2873 or [djeffrie@ci.newport-news.va.us](mailto:djeffrie@ci.newport-news.va.us).

### ***Significant Achievement Award for Large Business***

**Canon Virginia, Inc.**  
**Newport News**

- Goal of "zero landfill" by 2001 with 98% solid waste reduction since 1990
- Production costs, VOCs, emissions, and the use of PBTs reduced through solvent recycling and water based technologies.
- Carbon adsorption systems and innovative technologies reduced air emissions and hazardous waste shipments.
- ISO 14001 certification; and as a result of that certification.
- To be one of the first facilities in Virginia to achieve the "E3" designation.
- To be a Charter members of the EPA's Performance Track program for environmental excellence.



**Contact:** Ernie Hartman at 757-881-6389 or [ehartman@cui.cannon.com](mailto:ehartman@cui.cannon.com).



## Wampler, Broadway

David Frackelton, the Director of Environmental Affairs at Wampler, and his assistant Jesse McCoy, led staff of the Office of Pollution Prevention through their process step-by-step. Efforts made by Wampler to improve the environment include innovative ideas in water reduction and reuse, recycling and chemical substitutions ranging from simple mechanical devices that segregate waste streams to cutting edge treatment technology.



## Businesses for the Bay is Going On-site

*Businesses for the Bay's* Virginia members are opening their doors to OPP staff. As part of its commitment to promote B4B members, OPP has a goal of visiting at least two B4B members a month. The purpose of the visits are to document P2 successes; to use the P2 success story to promote the member on the web, in our newsletter, and in local newspapers; and to provide one-on-one assistance and insight for additional P2 opportunities.

Hopefully, these visits will help B4B members get the recognition they deserve and create more of a personal relationship and commitment to the program.

*If you would like to join Businesses for the Bay, please contact DEQ's Keith Boisvert at 804-698-4225 or [kaboisvert@deq.state.va.us](mailto:kaboisvert@deq.state.va.us).*

## Lear Corporation, Strasburg

The 'Wastebusters' team is a group of environmentally conscious employees at Lear Corporation led by Bryan Winter. Their efforts have contributed to winning the Governor's Environmental Excellence Award in 1998 for transitioning to a waterborne painting system and reducing VOC emissions. Other achievements by Lear include an 87% reduction in hazardous waste and a 73% reduction in VOC emissions over the last three years. The 'Wastebusters' team has also involved the company in community projects and events such as Earth Day.



*If you are a B4B member and you would like to host a site visit, please contact DEQ's Tom Griffin at 804-698-4545 or [rtgriffin@deq.state.va.us](mailto:rtgriffin@deq.state.va.us)*

## Mentoring Redefined, Reinvigorated, and On-Line

Over the past several years, interest in mentoring activities has grown in Virginia. Various programs, such as *Businesses for the Bay*, have developed mentoring services. Other organizations are also beginning to identify mentoring as a helpful tool for their members. DEQ views mentoring as an invaluable resource that complements its own compliance assistance and outreach activities.

During 2000, the Office of Pollution Prevention (OPP) began developing the Virginia Mentoring Network (VMN). The VMN will be a web-based information-sharing service, where peers can discuss ideas and problems outside of the regulatory arena. The VMN is scheduled to be launched in January, 2001.

The VMN will function as an umbrella service to existing mentoring programs,

such as *Businesses for the Bay* and the *EnviroMentors* program, which is administered by DEQ's Small Business Assistance Program. In addition, the Network will coordinate with developing mentor programs and encourage other organizations, such as trade associations and business councils, to develop similar programs.

The VMN's database will be organized and searchable by areas of expertise, name and geographic location. Individual mentors complete surveys establishing the types of environmental issues and topics in which they have experience and feel comfortable providing assistance. A person accessing the web site is able to search by a given subject topic.

Because mentoring is strictly a voluntary service, the extent of "mentoring" will be left up to the individual mentor and the "mentoree", depending

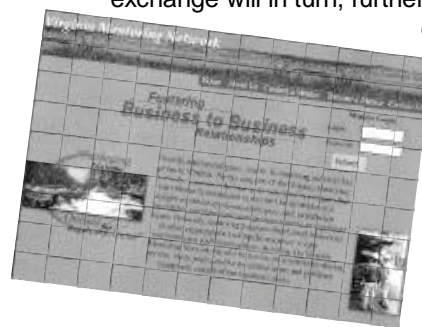
upon their individual needs, abilities, and time commitments. Mentoring can be as simple as answering a few questions.

The goal of the VMN is to facilitate as

many "mentoring events" as possible with the hope that this information exchange will in turn, further P2 and environmental-beneficial projects. Mentoring events do not have to be a

direct result of the VMN. For instance, they can occur through normal interactions with vendors, suppliers, community organizations, or other communications. DEQ plans to send a monthly email reminder to all of its mentors to report on their recent mentoring events. In addition, DEQ will periodically ask its mentors to attempt to quantify the results of their assistance efforts.

*For more information on the VMN, please contact DEQ's Jennifer Comfort at 804-698-4235 or [jkomfort@deq.state.va.us](mailto:jkomfort@deq.state.va.us).*



## Powering the Future Fuel Cells

Rodney Sobin, DEQ's  
Office of Environmental Technology

Imagine generating electricity quietly, efficiently, and with only water and carbon dioxide (CO<sub>2</sub>) as emissions. Imagine doing so at any scale from utility power plant to a home, car, or even a hand-held device. Imagine a source of premium power increasingly used by financial institutions, defense facilities, and others that cannot afford even the slightest break in electricity supply. Imagine fuel cells.

Fuel cells are both old and new. Invented by Sir William Grove in 1839, they lingered in obscurity until used in submarines and spacecraft during the Cold War. They now appear to be on the cusp of widespread commercial use. Air pollution and climate change concerns, demand for premium power, and increased interest in distributed power generation have reinforced the search for clean, quiet, reliable, and flexible energy technologies. At the same time, advances in technology have improved system performance and reliability while lowering costs.

What is a fuel cell? A *fuel cell* is an electrochemical device similar to a battery. (Fig. 1.) Unlike a battery, it needs fuel and air to create an electric current. The fuel provides hydrogen (H<sub>2</sub>) while the air yields oxygen. These combine to form water. In practice, most users don't employ pure H<sub>2</sub> as fuel. They use natural gas, biogas, synthesis gases, methanol, or petroleum products. These fuels are processed through a *reformer* to generate H<sub>2</sub> leaving CO<sub>2</sub> as a byproduct. Fuel cell developers, auto manufacturers, oil companies, the Departments of Defense and Energy (DOD and DOE), and others are developing systems that can use standard gasoline and diesel fuels. Finally, *power electronics* condition the electricity for final use or the electrical grid.

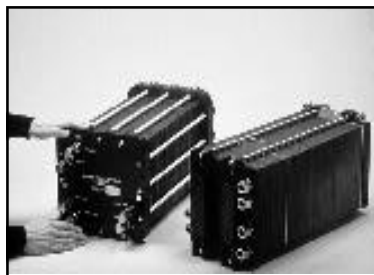


Figure 1: Ballard Power Systems' PEM fuel cell.

Several major fuel cell systems exist. *Proton exchange membrane (PEM)* fuel cells operate at 175 deg. F., making them promising for automotive, household, and light commercial use. (Fig. 2.) The *phosphoric acid fuel cell* is the most mature fuel cell technology, appropriate for factories, hospitals, hotels, apartment buildings, data processing centers, and shopping centers. New York City recently installed one at a pre-Civil War structure that serves as the Central Park police precinct house.

*Molten carbonate* and *solid oxide* fuel cells operate at over 1000 deg. F. and are applicable for large industrial or utility use.

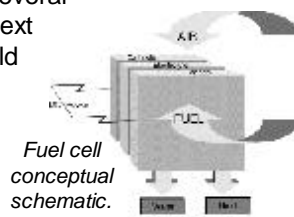
Why use fuel cells? They are highly efficient. They can generate electricity 20 to 80 percent more efficiently than conventional engines and power plants. If byproduct heat is recovered, total efficiency can exceed 80 percent.

They are environmentally sound. They are quiet and don't release pollutants, obviating the need for environmental permits and reducing

community concerns. High efficiency also means lower CO<sub>2</sub> releases, mitigating greenhouse gas concerns.

They are modular, flexible, and reliable. Fuel cells can be configured to operate at various sizes with a variety of fuels. They respond quickly to changing electrical loads. They provide reliable, uninterrupted power to facilities with premium power needs.

Costs continue to decrease. Mosaic Energy LLC and General Electric/Plug Power produce household fuel cells. GM, Ford, Chrysler, Volkswagen/Volvo and several other car companies are utilizing PEM fuel cells in operating demonstration vehicles with the hope that they might be made commercially available in several years. The next decade should see the commercial fruition of



Sir William's invention of 170 years ago. And that should be good for business and the environment.

For more information on fuel cells, contact DEQ's Rodney Sobin at 804-698-4382 or [rsobin@deq.state.va.us](mailto:rsobin@deq.state.va.us).

## Department of Defense and DEQ Sign P2 Agreement

On October 19, DEQ was joined by the Department of Defense, 20 defense installations in the Commonwealth, and the EPA to sign a partnership agreement to work cooperatively in promoting the use of pollution prevention techniques at military facilities.

Environmental managers from DEQ, defense installations and EPA will work cooperatively on various P2 initiatives. The partnership has already committed to two sets of projects: (1) reviewing five pollution prevention practices common to defense installations and possibly transferring them to the private sector within two years; and (2) initiating at least four cooperative projects among the participants every 18 months.

About two dozen participants signed the charter in a ceremony at the Capitol Building in Richmond.



Secretary of Natural Resources  
J.P. Woodley, Jr. signing the DOD  
Pollution Prevention Partnership Charter

## Environmentally Preferable Purchasing

The Department of General Services (DGS), Division of Purchasing & Supply is working with DEQ to establish and promote a state environmentally preferable purchasing (EPP) program.

Several states already practice EPP, a concept that was introduced by Executive Order 13101 and Federal Acquisition Regulation (FAR), and it is now an EPA initiative. According to E.O. 13101 and FAR, all federal procurement officials are required to assess and give preference to those products and services that are environmentally preferable.

DEQ and DGS are working to identify those products currently on state contract that contain environmental attributes such as recycled content, low toxicity, durability, and reusability. DEQ and DGS will also partner in coordinating EPP workshops that will provide training on how to purchase EPP products. A joint website is being developed to identify EPP products on state contract, and to provide guidance on purchasing/specifying these products, and other EPP resources and opportunities.

*For more information on Virginia's EPP program or if you or someone you know is currently practicing EPP, contact DEQ's Birgitte Dodd at 804-698-4168 or [brdodd@deq.state.va.us](mailto:brdodd@deq.state.va.us).*



## DGS Striving for E3!

DEQ met recently with the Department of General Services' (DGS) Bureau of Facilities Management and the Division of Consolidated Laboratory Services (DCLS) to discuss the possibility of developing a pilot environmental management system (EMS) in coordination with the Virginia Environmental Excellence Program (VEEP). In addition to VEEP, the meeting included discussions of the many P2 initiatives already undertaken by DGS, its P2 planning function, and various other waste issues that they are researching.

DEQ had hoped that DGS will pilot one or two of its downtown facilities and that the pilot might be used as a template for other state facilities. Instead, DGS has committed to implementing an EMS for the entire capitol area complex! DGS will be working with OPP staff and VEEP's EMS mentors to develop a comprehensive EMS in order to achieve the "E3" designation (See page 1). In addition, DCLS has committed to involving DEQ in the design of its new facility set to be constructed in 2002.

*For more information on the capitol area complex, please contact DEQ's Tom Griffin at 804-698-4545 or [rtgriffin@deq.state.va.us](mailto:rtgriffin@deq.state.va.us).*

## Virginia Naturally 2000 5K a Big Success for Science

On September 30, over 200 runners and volunteers participated in the Virginia Environmental Business Council's (VEBC) race to benefit the Virginia Junior Academy of Science. DEQ co-sponsored the race which raised in excess of \$5,000. The VEBC will present the race proceeds to the Academy on January 13, 2001 at the Science Museum of Virginia.



*Secretary Woodley and VEBC's Rick Lutz congratulating the winner.*

## Local Governments Pursue EPP

A number of state localities are currently practicing EPP. For example, the city council of Virginia Beach, Virginia has established a "buy recycled" procurement policy. The agreement takes into account product factors such as performance standards, health and safety standards, and operational and cost efficiency along with environmental aspects. Specifically, the policy states that recycled content products should be used when price, performance, and availability warrant.

Purchasing changes cited in the policy direct city officials to purchase city letterhead on recycled content paper, educate city employees on recycled content products, and require environmental attribute labeling on products by vendors. The policy also directs the city's Department of Economic Development to encourage businesses and manufacturers of environmental products to locate in Virginia Beach.



*For more information on EPP and local governments, please contact DEQ's Birgitte Dodd at 804-698-4168 or [brdodd@deq.state.va.us](mailto:brdodd@deq.state.va.us).*

## On-Line Tier 11 Reporting is Under Construction

*(EPCRA/SARA Title III  
Section 312 Emergency & Hazardous  
Chemical Inventory)*

The Virginia Emergency Response Commission and the Virginia DEQ SARA Title III Office in cooperation with the Virginia Department of Emergency Services are bringing Virginia facilities on-line Tier II reporting capability.

We encourage all facilities to employ electronic means to submit their Tier II reports. Facilities can look forward to an easy and secured means for making future report revision or update. Please

check our web site for the latest development and system requirements as we move this reporting program to the 21st Century.

Along with the on-line reporting, Virginia facilities will be offered the options to make the traditional paper submittal or electronic diskette submittals using Virginia's own Tier II electronic diskette submittal program.

The projected date for completion is beginning of February 2001. For periodic update on the progress of this endeavor, please check our web site: [www.deq.state.va.us/sara3/new.html](http://www.deq.state.va.us/sara3/new.html).

*If you have any questions, please contact Dona Huang of DEQ's SARA Title III Program at 804-698-4489 or [drhuang@deq.state.va.us](mailto:drhuang@deq.state.va.us).*

## Virginia Clean Marinas Program Ready to Set Sail

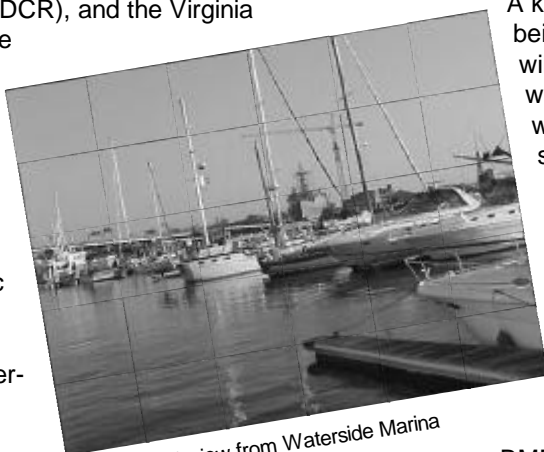
Because of their location at the water's edge, prevention of pollution at marinas is of critical importance. Boat washing and maintenance, fueling, sewage discharge, solid wastes and stormwater runoff all have the potential to directly impact water quality. The Virginia Clean Marinas Program was developed to help recreational boaters and marina owners prevent and reduce the potential for pollutants to contaminate Virginia's waterways. Clean Marinas is a joint partnership between DEQ, the Department of Conservation and Recreation (DCR), and the Virginia Institute of Marine Sciences (VIMS). DEQ's Coastal Program has funded the program through NOAA, the National Oceanic & Atmospheric Administration. DCR is administering the grant and the VIMS Sea Grant Program has been contracted to coordinate its activities. In January 2000, VIMS hired Harrison Bresee to run the program.

Early in 2000, the Marina Technical and Environmental Advisory Committee was formed to lay a framework for the program and provide focus, advice and direction. The Committee is comprised of a number of state agencies, including DEQ, DCR, VIMS, the Virginia Marine Resources Commission, the Department of Health, Department of Game and Inland Fisheries, and the Chesapeake Bay Local Assistance Department, as well as a number of trade associations, marina owners and other interested parties.

Clean Marinas is a voluntary program, designed to provide technical support and special recognition to marina owners that implement "best management practices" (BMPs) and go beyond

compliance with environmental regulations. The program stresses the prevention and elimination of pollution through increased attention to a number of core activities at marinas. These key areas include: marina siting, design and management; habitat and species conservation; emergency preparedness; boater education; and management of petroleum, solid and hazardous wastes, sewage, and gray water. Marina owners that demonstrate adherence to a list of recommended BMPs can apply and receive certification as a "Virginia Clean Marina".

The framework for the program is now in place and VIMS plans to begin accepting applications in January 2001.



A view from Waterside Marina

A kickoff event is being planned, and it will likely coincide with one of the winter boating shows. Also, a Clean Marina Guidebook will soon be available to serve a reference to marina operators. It will include information on

BMPs for a number of common marina activities, fact sheets, and regulatory and technical assistance contact information.

DEQ's OPP has assisted in the preparation and review of the Guidebook. OPP has worked with DCR to ensure that the Guidebook and the program's checklist will compliment DEQ's Environmental Excellence Program (see page 1). Certified marinas will be eligible for the VEEP's "E2" designation, and DEQ will be available to work with interested marinas to develop a fully-implemented EMS for the "E3" designation. OPP's Ron Pinkoski has already provided on-site assistance to several marinas and is available to assist others in support of the Virginia Clean Marinas Program.

For more information, please contact DEQ's Ron Pinkoski at 757-518-2007 or [rjpinkoski@deq.state.va.us](mailto:rjpinkoski@deq.state.va.us).

## environmentaLodging

Environment—who—what?!!! Think of pollution prevention practices. Now think of the hospitality industry. Combine them and you have the most recent initiative to promote P2 concepts in hotels, resorts, and parks. Virginia EnvironmentalLodging is being developed in conjunction with the Virginia Recycling Association to promote facilities that reduce their impact on the environment through P2 strategies.

DEQ is seeking industry endorsement of EnvironmentalLodging by distributing educational materials at conferences as well as meeting and working directly with industry members and associations. Some hotels across the state are already incorporating environmental ideas into various elements of their business; recognizing the environmental benefits; and, in many cases, realizing cost savings! Leading examples of such facilities are the Days Inn Chesterfield, Marriott Hotel Tysons Corner, Mountain Lake Hotel, and Wintergreen Resort. These facilities have adopted such practical P2 ideas as:

- Optional towel and/or linen service for longer staying guests
- Bulk purchasing and refillable dispensers of soaps, etc.
- Purchase and use of environmentally preferable cleaners
- Reusable glasses, plates, and napkins
- Low flow toilets and other water fixtures
- Energy efficient lighting fixtures and compact fluorescent bulbs

**Please see page 8 for information on the Annual EPA Region 3 P2 Conference, "Inn Keeping with the Environment" which will focus on P2 opportunities in the hospitality industry.**

If you would like more information on EnvironmentalLodging and a complete list of specific P2 practices related to the hospitality industry contact DEQ's Birgitte Dodd at 804-698-4168, or [brdodd@deq.state.va.us](mailto:brdodd@deq.state.va.us).



### Virginia Tech gets Heat for "Free"!

*Rob Lowe, P2 Coordinator, Virginia Tech*

Virginia Tech's College of Agricultural and Life Sciences *pays* for oil, the Motor Pool *gives* theirs away, while Environmental Health and Safety Services *pays* to get *rid* of theirs. Is there a problem here? Not at all, but up until now, it was impossible for The College of Agricultural and Life Sciences (CALS) to make use of the oil from the Motor Pool or Environmental Health and Safety Services (EHSS). Let us explain.

CALS operates the Beef Judging Pavilion on Plantation Road. Two older oil furnaces provide heat for the pavilion. The building is fairly large and is costly to heat (using thousands of gallons of fuel during cold winters).

The Motor Pool changes the oil for most school vehicles and produces over 2,000 gallons of used oil each year. This oil is currently collected in a 500-gallon tank. When the tank is full, a vendor takes the oil to be recycled. The



vendor does not charge us for this service, but they do not pay us for the used oil either.

EHSS collects used oils from a variety of sources.

Vacuum pump oil, motor oil from areas other than the Motor Pool, and lubricating oils are among those collected.

These are poured into 55-gallon drums for disposal, and the vendor charges a fee per drum. Due to the variety of oils that EHSS collects, it is difficult for these oils to be recycled.

So, how can we take these waste oils and burn them to generate heat at the Beef Judging Pavilion? We were not able to using our existing furnaces, but we can now in the new used oil furnace specifically designed to burn these materials!

The Pollution Prevention Program at EHSS was provided with seed money to undertake certain demonstration projects. One of the selected projects was the purchase and installation of a furnace to generate heat from these waste oils. The new furnace was recently installed at the Beef Judging Pavilion. This furnace will allow EHSS to avoid paying for disposal, save CALS money on purchases, and allow the use

of the oil from the Motor Pool. We anticipate the pay back period to be about three years. Certainly a win-win situation all around.

It would be nice to report that the installation went smoothly and without any difficulty. Unfortunately, this was not the case. But after battling the weather, the equipment vendor, and a too-noisy air compressor, the installation was completed in March.

EHSS will soon start transferring used oil to the 1,000 gallon storage tank that supplies the furnace. We will also be setting up drums at the various locations that generate used oil to aid in collection of the used oil.

By Fall 2001, it is anticipated that the Beef Judging Pavilion will have been heated sufficiently throughout the winter and the heating bills eliminated. Nothing beats free heat!

*Our sincere thanks to Danny Belcher, manager of the pavilion and Gary Minish, Department Head, for agreeing to let us install this furnace and for their patience as we worked through the installation problems. We appreciate the opportunity to undertake this demonstration project and we will use this to show other departments that generate used oil and have heating needs how a similar system can save them money. For more information, please contact Virginia Tech's Rob Lowe at 540-231-2510 or rlowe@vt.edu.* ■

### DEQ Joins Waste Wi\$e

This spring, DEQ joined the EPA's Waste Wi\$e program, committing to expand the agency's solid waste reduction activities. Waste Wi\$e is a voluntary partnership program that assists and challenges organizations to find savings through innovative waste reduction activities. Waste Wi\$e offers planning, measurement and educational tools and assistance to aid partners in creating and reaching solid waste reduction goals on a yearly basis. DEQ is focusing on its central office activities for its first year reduction goals. Other DEQ offices will gradually be incorporated into the program. DEQ's goals will focus on office waste paper, waste electronics and promotion of the Waste Wi\$e Program to local governments and businesses within Virginia. DEQ was honored at the Waste Wi\$e Awards and Recognition Ceremony on October 19 in Washington, DC.

*For more information on the Waste Wi\$e Program, please contact Kim Easter at 804-698-4543 or [kreaster@deq.state.va.us](mailto:kreaster@deq.state.va.us).* ■

### Ukrop's Bin Shopping Program

Paper or plastic? Grocery shoppers everywhere are plagued by this question when it is time to check-out. Which one should you choose? Which one is better? Plastics result in increased dangerous air emissions; paper is heavier and takes up more landfill space.

Now, the Carytown Ukrop's in Richmond is addressing this dilemma. In an attempt to reduce costs and protect the environment, the 'Bin Shopping Program' has been instituted. This program allows shoppers to purchase a reusable plastic bin in which to carry their groceries, thus

eliminating the need for grocery bags. Just one of these bins can hold about as much as two paper or four plastic bags. Savings from not having to supply bags is passed on to the 'bin' shopper through a store credit.

The concept is really catching on.

After only six weeks, there were approximately 3500 bins in circulation. Ukrop's has also recently established a section of cleaning products that are "environmentally safe". If you live in the

Richmond area, be sure to check them out!

*For more information on the bins, please contact Nancy Jo Ukrop at 804-897-9604 or [njukrop@ukrops.com](mailto:njukrop@ukrops.com).* ■



## P2 Events Calendar

### January 29-30, 2001

*Inn Keeping with the Environment* will be held in Philadelphia, Pennsylvania and will feature expert speakers on pollution prevention for the hospitality industry. Speakers will address ways in which lodging establishments, resorts, restaurants, and meeting planners can both improve the environment and their bottom line. For more information, contact NPPR's Michele Russo at 202-466-7272 or [mrusso@p2.org](mailto:mrusso@p2.org).

### February 28-March 2, 2001

*Expanding Our Reach: P2 Tools and Technology for a Greener Globe*: The NPPR Spring 2001 Conference is being held in Chicago, Illinois and will feature

the latest in P2 policy, regulatory and technical assistance initiatives. For more information on the conference or to register, please visit [www.p2.org](http://www.p2.org) or contact NPPR's Michele Russo at 202-466-7272 or [mrusso@p2.org](mailto:mrusso@p2.org).

### April 4-5, 2001

*Environment Virginia 2001*: The 12th annual conference at VMI in Lexington, Virginia seeks to bring together environmental leaders to exchange information about new technologies, approaches, and other innovations that determine if we meet our challenge in the Environmental Century. For more information, please visit [www.vmi.edu/ev](http://www.vmi.edu/ev).

### June 6-8, 2001

*Virginia Sustainable Future: Solutions for the Environment, Businesses, and Communities*: The conference will bring together participants to learn about such topics as green building, sustainable community design, innovative technologies, and product stewardship. For more information, please visit [www.deq.state.va.us/vsf2](http://www.deq.state.va.us/vsf2).

### Pollution Prevention Virginia by Email

*This is the first issue of Pollution Prevention Virginia that we have sent to our subscribers via email. If you are interested receiving this newsletter electronically and practicing pollution prevention, please contact DEQ's Jennifer Comfort at 804-698-4235 or [jkcomfort@deq.state.va.us](mailto:jkcomfort@deq.state.va.us).*

## P2 for the Holidays

Here are a few suggestions for you to incorporate P2 into your holidays:

- Reuse wrapping paper
- Save boxes and bows for reuse
- Make your own wrapping paper
- Don't wrap!
- Give rechargeable batteries and "Energy Star" electronics when applicable
- Recycle your Christmas tree or buy a plantable one
- Give really good gifts that won't get thrown away!

From the Office of  
Pollution Prevention,  
have a safe and  
happy holiday  
season!



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